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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---------------------------------------------------------------------------------------------------------------|-------------|----------------------|---------------------|------------------|
| 10/827,425 | 04/20/2004 | Jun-ichi Murakami | 042331 | 2551 |
| 38834 | 7590 | 01/18/2006 | EXAMINER | |
| WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP 1250 CONNECTICUT AVENUE, NW SUITE 700 WASHINGTON, DC 20036 | | | MASIH, KAREN | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2837 | |

DATE MAILED: 01/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/827,425

Applicant(s)

MURAKAMI, JUN-ICHI

Examiner

karen masih

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3,6-8,11-13,16 and 17 is/are rejected.
- 7) ☒ Claim(s) 4,5,9,10,14,15,18 and 19 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

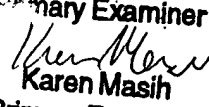
- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/20/04.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Karen Masih
Primary Examiner

Karen Masih
Primary Examiner

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3,,6-8,11,12,13,16,17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prior art figs 5-7 in current application in view of Platt.

Prior art figs 5-7 discloses motor controller for simultaneously controlling operation of at least two motors by pwm comprising pair of switches for supplying driving power to a pair of motors among said at least two system motors respectively, pair of pulse signal generators for generating pair of pulse signal respectively having predetermined duty rations at predetermined cycles ad outputting pulse singles to pair of switches to turn on or off pair of switches, see fig 6 #51,#52,#61,#62, fig 7 d1 and d2 and #81,#82. Prior art lacks disclosing inversion means for inverting with respect to a phase of one of two pulse signal that is generated and output by one of two pulse signals generators, a phase of the other of two pulse signal which is generated and output by other of two pulse signal generator or by 180 degrees. Platt discloses inversion means for inverting with respect to phase of one of two pulse singles that is generated and out by one of said two pulse signals generators, a phase of the other of said two pulse signals which is generated and output by the other of said two pulse sing al generators by 180 degrees, see paragraph 0032 lines 1-12 and paragraph 0005 lines 1-5. It would have been obvious to one of ordinary skill in the art to combine the motor controller of Prior art figs 5-7 with inversion means of Platt for improved performance.

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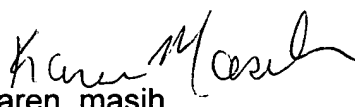
3. Claims 4,5,9,10,14,15,18,19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Masaki et al discloses pwm with 180-degree shift.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to karen masih whose telephone number is 571-272-2068. The examiner can normally be reached on m-f 8.30-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, david martin can be reached on 571-272-2800 ext 41. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


karen masih
Primary Examiner
Art Unit 2837

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